IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of: Emmanouil Domazakis	)	Examiner: Thuy Tran Lien
Serial No. 10/577,813	)	Art Unit: 1794
Filing Date: July 31, 2006	)	Attorney Docket: CFAV-6
METHOD OF PRODUCTION OF CROISSANT TYPE PASTRY PRODUCTS WITH CHARCUTERIE AND CRÈME CHEESE FILLING, AND WITH INCORPORATION OF OLIVE OIL INTO THE DOUGH	)	April 26, 2010

DECLARATION UNDER RULE 1.132
TRAVERSING GROUNDS OF REJECTION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

1. I, Emmanouil Domazakis, being the inventor of the above-referenced Application (hereinafter "the Application"), to rebut the rejection of the claims of the Application under 35 U.S.C. §112, first paragraph, entered in the Office Action mailed December 23, 2009, from the U.S. Patent Office, declare as follows.

2. With regard to the micro-organisms used in the present Application, it is a common knowledge that the term "baker's leaven" or "baker's yeast", refers to strains of yeast, commonly the *Saccharomyces cerevisiae*. The term Baker's Yeast is a common name, as shown in **http://en.wikipedia.org/wiki/Baker's_yeast**, the source quoted below:

> "**Baker's yeast** is the common name for the strains of yeast commonly used as a leavening agent in baking bread and bakery products, where it converts the fermentable sugars present in the

dough into carbon dioxide and ethanol. The majority of the yeast used in baking is *Saccharomyces cerevisiae*, which is the same species commonly used in alcoholic fermentation, and so is also called brewer's yeast." (Source: Wikipedia, 3/3/2010)

2. The same reasoning applies for the term "leaven," which is considered as a commonly used term for a substance used to produce fermentation in a dough and its composition is easily conceived by a person of ordinary skill. According to a common definition, leaven is

> "*any substance that produces, or is designed to produce, fermentation, as in dough or liquids; esp., a portion of fermenting dough, which, mixed with a larger quantity of dough, produces a general change in the mass, and renders it light*" (Source: http://www.definitions.net/definition/leaven, 4.3.2010).

Despite the obviousness of the term, the Application provides instructions for the preparation of leaven, as provided, for example, in the lines 9-10 of page 2 of the original Application: "*The liquid leaven (step 2) is prepared by the inoculation of rye flour with specially formulated microbial cultures.*" Moreover, every person of ordinary skill would be aware of how to make a proper dough and thus the teaching of precise amounts of flour and water for dough making are not considered necessary. In any case, the Application does not attempt to claim novelty in the making of conventional dough. Rather, the Application deals with the technological challenge to incorporate olive oil as a sole added fat substance in the making of croissant-type pastry, instead of the traditionally used shortening/butter. This is achieved by combining "direct" and "indirect" oil incorporation in the dough making.

4. The reference in the original Application to the terms "combination of microbial cultures" (e.g., page 1, line 8) "leaven" and "maturation" (e.g., page 2, line 37), makes it obvious to a person of ordinary skill that said "combination of microbial cultures," at least contains one component, namely, at least a yeast component, as conventionally used since ancient times. Moreover, with the phrase "the aforementioned were achieved with the use of an emulsion of specific composition.....as well as with the use of liquid leaven prepared by a specific combination of microbial cultures which ensure the consistency of the primary culture as well as that of organoleptic features and the long-term conservation of the final product," in the original Application (page 1, lines 24-39) it is clearly indicated to a person of ordinary skill that the combined effect of a number of microorganisms is being used. The so-called "Sourdough starter" is a stable symbiotic culture of bacteria and yeast present in a mixture of flour and water. The "Sourdough" microflora is composed of stable associations of lactobacilli and yeasts, in particular due to metabolic interactions. The "Sourdough fermentation," therefore, is a process that takes advantage of the combined metabolic activity, resulting in both desirable textural properties and long-term preservation (anti-mould activity). *Saccharomyces cerevisiae*, for example, alone cannot give the long term preservation by carbon dioxide and alcohol. Therefore, the ordinarily skilled person in the art can either use antifungal compounds to block the early unavoidable mold growth, such as propionates, or in order to avoid chemical additives, he may use microbial antagonists, such as lactobacilli in the Sourdough starter, where the starter culture is made of both lactobacilli and *Saccharomyces sp.* In summary, the term "combination of microbial cultures," which ensure the consistency of the primary culture, as well as that of organoleptic features and the long-term conservation of the final product, clearly indicates the

use of a "Sourdough" microflora, to a person of ordinary skill. Nonetheless, the production of Sourdough bread can be traced back to ancient times.

5. Moreover, by the phrase "The liquid leaven, prepared by the inoculation of **rye** 10 **flour** with specially formulated microbial cultures," in the original Application (e.g., page 2, lines 9) it is clearly implied to a person of ordinary skill the use of the "Sourdough starter," as also seen by the following source:

> "*Sourdough is a dough containing a lactobacillus culture, usually in symbiotic combination with yeasts. It is one of two principal means of leavening in bread baking, along with the use of cultivated forms of yeast* (Saccharomyces). ***It is of particular importance in baking rye-based breads, where yeast does not produce comparable results....***" (Source: Wikipedia, 22/3/2010)

Therefore, a person of ordinary skill would easily be led to the use of the Sourdough starter, not only by combining the information given in the Application with what's known in the literature, or from common practice.

6. With regard to the "homogenization in a high-speed mixer," the Examiner should kindly notice that "homogenization," (i.e., the "act of making something homogeneous or uniform in composition") is a critical parameter for the making of an "emulsion" in the original Application comprised of distilled monoglycerides, water, olive oil, dextrose, fructose and egg yolk (line 6, page 2). As a general rule, an essential feature of an emulsion is the small size of the dispersed phase droplets. The mixing speed is a critical influential factor on the fat particle size and distribution. By imposing high shear stress upon the mixture, induced by high mixing

rate, the material to be dispersed is broken into a multitude of fine particles. It is thus common knowledge that homogenization is promoted by high mixing rates. A regular high-speed mixer, used in food industry, can usually provide approximately up to 3000 rpm.

7. The emulsion in step 1 of claim 1 of the Application is a water-in-oil emulsion, and thus it is easily conceived by a person of ordinary skill that the water phase should account for an amount of less than 50% (v/v) on total emulsion, while oil should participate in an amount of more than 50% on total emulsion (v/v). Addition of monoglycerides is in amount of <0.5% on total emulsion weight. The amount of dextrose and fructose may be easily adjusted by a person of ordinary skill in order to achieve the desirable organoleptic effects (such as taste and viscosity) in the resulting emulsion (matter of preference). Monoglycerides alone exert strong emulsifying activity, thus rendering the role of yolk (containing lecithin, a common emulsifier), as complementary in this case. Therefore, the amounts of yolk that the person of ordinary skill would choose to use would mainly depend on the desirable organoleptic properties of the resulting emulsion (a matter of preference).

8. The Application makes use of equipment suited for the preparation of pastry-based products, which is commercially available. In specific, the terms "cutting-filling-folding machine," "moulds," "extruder" and "series of dough motors" all refer to elements of equipment suited for the making of the said products and thus well known to a person skilled in the art. Further clarification regarding the equipment would have added unnecessary information into the Application. The same applies for the "high microbial quality air," which constitutes a common strategy to extend the microbiological shelf life of bakery products, by preventing post-baking contamination. A high microbial quality air can be achieved, for example, in a filtered air environment or by exposure to UV light.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Emmanouil Domazakis

Date of Signature: 20/4/2010

KD_IM-2652803_1.DOC